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
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,134	12/22/2001	Roberto Coccioli	01CON270P	4938
25700	7590	12/15/2003	EXAMINER	
FARJAMI & FARJAMI LLP			WILLIAMS, ALEXANDER O	
16148 SAND CANYON			ART UNIT	
IRVINE, CA 92618			PAPER NUMBER	

2826

DATE MAILED: 12/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/026,134	Applicant(s) COCCIOLI ET AL. 	
	Examiner Alexander O Williams	Art Unit 2826	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 5-10 and 17-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 11-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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Serial Number: 10/026134 Attorney's Docket #: 01CON270P

Filing Date: 12/22/2001;

Applicant: Coccoili et al.

Examiner: Alexander Williams

Applicant's Amendment filed 9/26/03 is acknowledged.

This application contains claims 5-10 and 17-20 drawn to an invention non-elected with traverse in Paper No. 5.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 to 4 and 11 to 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wiklof et al. (U.S. Patent # 6,114,962) in view of Eberhardt (U.S. Patent # 6,246,327 B1).

In claim 1, Wiklof et al. (figures 1 to 3) specifically figure 2 show a structure comprising: a laminate substrate **18,10** having a top surface for receiving a semiconductor die **26**; an antenna element **28** situated on said top surface of said

laminate substrate, said antenna element coupled to a laminate substrate bond pad **29**; a bonding wire **30** providing an electrical connection between said laminate substrate bond pad and a semiconductor die bond pad (not shown, but inheritly connected to 30 on top of 26), but fail to explicitly show said antenna element being coupled to said laminate substrate by a trace on said top surface of said laminate substrate.

For example, in claim 11, Wiklof et al. (figures 1 to 3) specifically figure 2 show a structure comprising: a laminate substrate **18,10** having a top surface for receiving a semiconductor die **26**; an antenna element **28** situated on said top surface of said laminate substrate, said antenna element coupled to a laminate substrate bond pad **29**; a bonding wire **30** providing an electrical connection between said laminate substrate bond pad and a semiconductor die bond pad (not shown, but inheritly connected to 30 on top of 26). Wiklof et al. fail to explicitly show a second semiconductor die and a second antenna on the surface of the laminated substrate. However, as detailed above Wiklof et al. does discloses a semiconductor die and antenna on the substrate surface. It would be a matter of designer's choice to have a second semiconductor die and a second antenna on the surface of the laminated substrate for the purpose of having multiple device manufactured. Also, Wiklof et al. fail to explicitly show said antenna element being coupled to said laminate substrate by a trace on said top surface of said laminate substrate.

Eberhardt is cited for showing a RF identification tag circuit chip. Specifically, Eberhardt (figures 1-8) specifically figures 4 and 5 discloses said antenna element **36** being coupled to said laminate substrate by a trace **38** on said top surface of said laminate substrate **30** (see column 2, lines 14-20) for the purpose of providing a electrical connection to the device.

Therefore, it would have been obvious to one of ordinary skill in the art to use Eberhardt's trace and antenna t modify the teaching of Wiklof et al.'s single chip and antenna on the substrate surface to form a device with a semiconductor die and antenna on the substrate surface. It would be a matter of designer's choice to have a second semiconductor die and a second antenna on the surface of the laminated substrate for the purpose of having multiple device manufactured.

Claims 1 to 4 and 11 to 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Pollack (U.S. Patent # 6,534,711 B1) in view of Eberhardt (U.S. Patent # 6,246,327 B1).

In claim 1, Pollack (figures 1 to 9D) specifically figure 7D show a structure comprising: a laminate substrate **104** having a top surface for receiving a semiconductor die **720**; an antenna element (**750,550**) situated on said top surface of said laminate substrate, said antenna element coupled to a laminate substrate bond pad (**portion connected to 730b,730f**); a bonding wire **732** providing an electrical connection between said laminate substrate bond pad and a semiconductor die bond pad **726**, but fail to explicitly show said antenna element being coupled to said laminate substrate by a trace on said top surface of said laminate substrate.

In claim 11, Pollack (figures 1 to 9D) specifically figure 7D show a structure comprising: a laminate substrate **104** having a top surface for receiving a semiconductor die **720**; an antenna element (**750,550**) situated on said top surface of said laminate substrate, said antenna element coupled to a laminate substrate bond pad (**portion connected to 730b,730f**); a bonding wire **732** providing an electrical connection between said laminate substrate bond pad and a semiconductor die bond pad **726**, but fail to explicitly show a second semiconductor die and a second antenna on the surface of the laminated substrate. However, as detailed above Pollack does disclose a semiconductor die and antenna on the substrate surface. It would be a matter of designer's choice to have a second semiconductor die and a second antenna on the surface of the laminated substrate for the purpose of having multiple device manufactured. Also, Pollack fail to explicitly show said antenna element being coupled to said laminate substrate by a trace on said top surface of said laminate substrate.

Eberhardt is cited for showing a RF identification tag circuit chip. Specifically, Eberhardt (figures 1-8) specifically figures 4 and 5 discloses said antenna element **36** being coupled to said laminate substrate by a trace **38** on said top surface of said laminate substrate **30** (see column 2, lines 14-20) for the purpose of providing a electrical connection to the device.

Therefore, it would have been obvious to one of ordinary skill in the art to use Eberhardt's trace and antenna to modify the teaching of Pollack's single chip and antenna on the substrate surface to form a device with a semiconductor die and

antenna on the substrate surface. It would be a matter of designer's choice to have a second semiconductor die and a second antenna on the surface of the laminated substrate for the purpose of having multiple device manufactured.

Response

Applicant's arguments filed 9/26/03 have been fully considered, but are moot in view of the new grounds of rejections detailed above.

The listed references are cited as of interest to this application, but not applied at this time.

Field of Search	Date
U.S. Class and subclass: 257/684,728,724,723,725,685,528	6/19/03 12/11/03
Other Documentation: foreign patents and literature in 257/684,728,724,723,725,685,528	6/19/03 12/13/03
Electronic data base(s): U.S. Patents EAST	6/19/03

Papers related to this application may be submitted to Technology Center 2800 by facsimile transmission. Papers should be faxed to Technology Center 2800 via the Technology Center 2800 Fax center located in Crystal Plaza 4-5B15. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center 2800 Fax Center number is (703) 308-7722 or 24. Only Papers related to Technology Center 2800 APPLICATIONS SHOULD BE FAXED to the GROUP 2800 FAX CENTER.

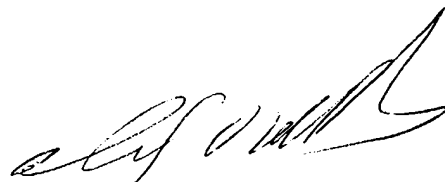
Any inquiry concerning this communication or any earlier communication from the examiner should be directed to ***Examiner Alexander Williams*** whose telephone number is **(703) 308-4863**.

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Any inquiry of a general nature or relating to the status of this application should be directed to the **Technology Center 2800 receptionist** whose telephone number is **(703) 308-0956**.

12/12/03

A handwritten signature in black ink, appearing to read 'Alex Williams', written in a cursive style.

Primary Patent Examiner
Alexander O. Williams